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John Palmer
Robert John Palmer
Robert John Palmer
THINETS
ON THE
DOMESTIC MANAGEMENT

John Palmer
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John Palmer
CHILDREN.

John Palmer
BY
C. J. ROBERTS, M.D.

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Robert John Palmer
The consideration I shall here have of health, shall be, not what a physician ought to do with sick or crazy children; but what the parents, without the help of physic, should do for the preservation and improvement of an healthy, or at least not sickly constitution, in their children."—LOCKE ON EDUCATION.

Robert John Palmer
LONDON:

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PREFACE.

THE treatment of children has been considered in all ages of the world as a subject worthy of the most serious contemplation, and in ancient times drew the attention of the most renowned philosophers to its importance. As it has long ceased to be a subject of legislative interference, every parent has considered him, or herself, both competent and at liberty, to act towards their offspring in the manner they have individually de-

terminated upon as being most proper, without reflecting whether it was the most likely to conduce to the required end. The very constant recurrence and familiarity of the subject has been the cause of its being so lightly regarded, and it is alone by careful investigation that we become fully sensible of its paramount utility and importance.

When we reflect upon the numerously serious, and even momentous consequences, which depend upon the proper treatment of the human species during the early epocha of its existence, we shall then be somewhat aware of the enormous claims which it has upon us, for our judicious care and attention. We cannot fail of perceiving how much of the future health, and therefore happiness of the man, depends upon the

management he meets with when a child. When we remember the helplessness and dependence of infancy, it will require no great stretch of the imagination to represent how those beings may be either trained to possess a sound understanding, combined with bodily vigour, or an equally debilitated state of both.

“*Non licet omnibus,*” says the Latin adage, “*adire Corinthum,*” and consequently not all parents are blessed with a healthful progeny. If, however, these unfortunates should be carelessly or negligently treated, instead of being anxiously tended, they will either never reach maturity, or will exist in an inane condition of both body and mind. Many weakly children, who have been solicitously brought up, have thriven into healthy men and women; and although

they have never enjoyed robust health, yet they have fulfilled their duties through life with comfort to themselves ; while on the contrary, if they had been neglected in their infancy, and abandoned in their childhood, they would either have died young, or lingered through a short existence, the victims of a chronic unmitigable malady. The proper regulation, therefore, of the infantile period of existence, becomes as much a parental duty as the supplying of food and raiment ; because, should it either be heedlessly performed, or entirely neglected, the after consequences upon the moral and sanitary welfare of the offspring must be fearful.

A number of children collected together has been frequently compared to a miniature representation of society ; and

in which the temper and disposition of each individual is as completely developed as it would be in "children of a larger growth." Where there are many children in a family, the same evolution of inclinations and affections will be shewn as if strangers to each other, with this only difference, that these passions, in the well nurtured, would be more under control than in others whose minds were totally unrestrained.

If, therefore, these germs of future action, either prognosticating good or ill, so soon shew themselves in the disposition, so much more is the superintendence of a kind and watchful guardian needed, either to repress or encourage, as the case may be. None are so well fitted in every way for the superintendence of young children as mothers : they have an intui-

tive knowledge of the peculiarities in the temper of each; they encourage the timid, soothe the petulant, and curb the violent: this they do in a manner only known to themselves, and which maternal affection alone can comprehend. The mother also bears patiently with the perversity of the froward; and instead of making that temper worse by ill-timed or impatient correction, calms the excitement, and endeavours, by such arguments as are suited to the years, to quiet irritation by appeals to the dawning reason. This requires patience, and that of the most enduring and affectionate kind, and which alone resides in the mother's breast. These being the requisites for forming the youthful mind, it may be reasonably inquired, if a hired nurse—let her be of the very best description, and endued with the kindest disposition—will at all times

be ready, whether ill or well inclined, or the contrary, to soften the anger, or soothe the tears, of the irascible or complaining child.

Fretfulness is not always the product of ill temper or frowardness, but is frequently the result of approaching disease, and which the imperfect ratiocinatory powers of the child are unable of either comprehending or explaining. In such instances, ill temper or snappishness on the part of the attendant will be productive of crying, and increased illness, which a reverse conduct might possibly mitigate, if not postpone. Important benefits to both body and mind must result from the affectionate and judicious superintendence of mothers to their children; and by taking the government of this period of existence into their own

hands, instead of deputing it to servants, they will be perpetuating to themselves a pleasure which cannot by any adverse circumstances ever be destroyed.

Having had the utility of such a course of conduct so well exemplified in his own family, the author will be well repaid for the trouble which it may have occasioned him in throwing these few hints together, if he can only draw the attention of mothers and the public to the subject : and it will add still more to his gratification, should he be able to persuade them to abandon the practice of tampering with the health of children, by the administration of domestic remedies.

They may be assured that the structure and functions of the human body are by much too complex to permit of their

being understood at a glance ; and that their regulation, when disordered, calls for a much greater knowledge of the perfection of their structure, than can be obtained by a mere inspection of their external form.

That when the health is disturbed, its rectification had better be entrusted to those who, both by study and practice, are best fitted for the task. For it should never be forgotten, that in disease, as well as in the affairs of life, the first indications are the most to be valued, or as the French say, “ *c’est le premier pas qui coûte.* ”

31, NEW BRIDGE STREET,

May 1838.

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HINTS
ON THE
DOMESTIC MANAGEMENT
OF
CHILDREN.

CHAPTER I.

THE methods adopted for the management of children, form, on the whole, one of the most curious paradoxes ever conceived by the human mind ; for, with every intention of benefiting these young creatures, those who are intrusted with the care of them generally do every thing to obviate the attainment of their own wishes. The persons to whose guidance young children are usually committed, are, in the first place, a class of females belonging to any other rather than the educated portion of society, and whose modes of acting, under any other circumstances, parents

would hesitate to sanction : yet, the whole conduct of the nursery, as well medically as morally, is intrusted to them, without its being remembered for one moment, that, like all ignorant and half-educated persons, they are, in proportion, obstinate and prejudiced. Of these the generality of monthly nurses are in the extreme, and it is frequently a matter of surprise that females get so well up from the pains and inconveniences of a lying-in chamber, shackled as they are by the pertinacious perversity of their attendant. It must with regret be acknowledged, that many ladies who have enjoyed the advantages of a good education, and are not in any way deficient in the means of applying it, have frequently so far condescended as to confide in the suggestions of these individuals, in preference to the express directions of their medical men ; and further, have permitted the insidious assertions of these women to weigh in their minds to the disadvantage of their professional advisers.

Dr. Dewees, a professor of Midwifery in one of the American universities, and who enjoys considerable celebrity both as a writer

and a practitioner in that branch of his profession, has one sentence in his work upon that subject, which should ever be borne in mind by ladies during their accouchement, which is—"Let it not be hastily assumed, that there is more safety in following the directions of a nurse than those of a physician, because she may have had some experience ; for it must be quickly perceived, that the calculation is much in favour of the latter, since the *nurse* can attend but *twelve* patients per annum, whilst the physician may visit many hundreds in the same period. Besides, his knowledge of the laws of the human system gives him a very decided superiority." Much mischief is often perpetrated in the lying-in room by disobedience to medical orders on the part of the attendant, and by misplaced confidence in her assumed knowledge on the part of the patient. They also have a variety of wise saws regarding the method of bringing up the infant, and not only act upon these themselves, but what is much worse, impress them upon the minds of other servants, who are afterwards to take charge of the child, and thus perpetuate the mischief so early commenced.

This has, in a great degree, originated in the want of a community of thinking among medical men, as to the proper mode to be pursued in managing infants. Each practitioner, speaking generally, has some peculiar ideas upon the plan best to be adopted in the lying-in room, both towards mother and child ; and as these women, the nurses, are brought in contact with twelve different accoucheurs in the course of a year, they imbibe a certain portion of the method of each—that is, just as much as suits either their convenience or their prejudice. These they jumble together, and, on every opportunity, launch them forth upon the devoted heads of all the tender infants unfortunate enough to come under their care.

Dr. Cadogan, a physician who was resident at Bristol, and wrote an essay upon the government of children, for the guidance of the governors of the Foundling Hospital, when first founded, in speaking of the object of his essay, thus expresses himself : “ In my opinion, this business has been too long fatally left to the management of women, who cannot be supposed to have proper knowledge to fit them for such

a task, notwithstanding they look upon it to be their own province: what I mean is, a philosophic knowledge of nature, to be acquired only by learned observation and experience, and which, therefore, the unlearned must be incapable of." This is quite true, and shows very plainly that this class of persons (nurses) are the same now as when he wrote, very nearly a century ago. It is with the hopes of withdrawing the entire management of children from the hands of this class, that these few hints have been thrown together, trusting, that by calling the attention of the public, and especially of mothers, to the consideration of the manner in which infants are treated, from their birth upwards, they may be induced to give the subject more of their care and consideration, and that, through such endeavours, mothers will see the propriety of retaining the government of their offspring in their own possession, instead of delegating it to those in whose hands it is now placed, and will intrust their guidance to men who are, by education, profession, and practical experience, more fitted than any others for the task.

CHAPTER II.

Observations on the Management of Children.
—*Exposure to Cold a cause of Disease.*—
Greater Mortality of Children in Cold Cli-
mates.

CHILDHOOD is the most interesting period of human life; not simply on account of its early helplessness and dependence upon parental solicitude, but because we either see, or fancy we see, in the young creatures entrusted by Providence to our regard and attention, the germs of future good ready to spring forth, and repay us for our concern and anxiety; and that we may not be disappointed in our *fond hopes*, it ought to be our duty and pleasure to give the greatest possible attention to the health of both body and mind. It may be objected, that in the very tender age of infancy there is not any sentient principle worthy of being considered as mind; and in

the abstract sense this may be true ; but still there is a species of instinct which supplies its place, and acts as its representative. If we are to believe the physiologists, the brain of an infant is incapable of performing many of its functions, and not any of those which, in after-life, are to be the sources of its principal comfort and enjoyment. The senses are only partially, or rather imperfectly, developed ; but yet even the little sensibility it has, may, by proper training, be rendered serviceable to its future good. Infants of a year old are by nature tyrants ; they see, and to a degree comprehend, the objects by which they are surrounded, and this generates caprice : they cry for all within their ken, and become arbitrary before they have ever known submission. Unless, therefore, there is some slight restraint imposed thus early, and which may be profitably increased with the enlarging energies, mental as well as corporeal, we shall have our ardour damped at the commencement, and our otherwise auspicious prospects of successful results at once annihilated.

The economy of children, from the early

periods of life until they attain the age of seven years or upwards, is one of the most important subjects which can come under the consideration of either the parent or the physician. To parents, as showing them the best means of keeping their offspring healthy—and to the physician, in serving to point out to him the cause and the consequent probability of relief which he may be capable of affording in numerous diseases.

Those who are habitually seeing children suffering under illness, are fully aware that a majority of their indispositions are the production of improper domestic management; and further, that maladies often run on to a height they would not otherwise attain, were it not for the inattention of the attendants, and a carelessness upon the part of these persons to the wants and looks of their little charges. Certain traditionary impressions, or perhaps they might be called notions, of an erroneous character, of the proper discipline which children ought to undergo, have very generally taken possession of the minds of parents, and so firmly are these fixed, that any attempt to dislodge them would be at-

tended by considerable difficulty: they are endeared to our recollections from having heard them constantly recounted and descanted upon by mothers and nurses, and further, by having ourselves lived and struggled through them until they have become a portion of our prejudices, imprinted on our remembrances as if they were a part of our creed: they are not, therefore, to be easily shaken off, but are still persisted in, in spite of the silent appeals of good sense and good feeling for their abandonment. Many persons imagine, that infants and young children suffer but very little from illness, unless attacked by diseases of a grave character; and that in fact their complaints, when they have any, are the results of causes equally trivial with the consequences. This is, however, a great misapprehension, for very many of the most serious infantile disorders spring from circumstances seemingly unimportant. It was observed, that in some parts of Italy the mortality of young children was extreme, and the cause was, for a very considerable time, inexplicable; at length it was found that it was the custom among the mothers to send their

children to a cold cathedral to be christened, either on the first or the second day after birth. So soon as the attention of the superior Catholic priesthood was awakened to this fact, they immediately ordered that the curates should baptize all young children in the houses of their parents during the cold of winter. This was no sooner done than the excessive number of deaths ceased. With so mild a climate as Italy is supposed to possess, the cold could never be thought sufficiently severe to produce such mischief. If young children, therefore, are so sensitive to the impressions of the external air in a country so generally genial as that is, what must they not suffer by any imprudent exposure to the rigour of our winter? It would seem, indeed, that we despise the lesson taught us by nature, in the provision which is made by both birds and animals for the protection of their young from cold; the former will cover its callow brood with her wings and body, and supply, at her own cost, any expenditure of animal heat which may arise. The larger animal will shelter its progeny also at the price of its own warmth, when any circumstance occa-

sions such a necessity ; yet we constantly see very young children carried about in the open air, on a severe winter's day, with the most reckless indifference as to the mischief which may probably ensue. This is only one of the many dangers to which they are daily rendered liable, and only differs from a host of others by being quicker and more unerring in its destruction, but is equally rife in causing infantile disease, which frequently terminates life by certain though slow degrees.

Our continental neighbours have paid very much more attention to the subject of medical statistics than we have in this country, and we are much indebted to them for some excellent tables, showing the state of mortality amongst the infantile population, and from which we are enabled to draw inferences as to its probable ratio with us.

There can be but little doubt that the number of deaths which occur in young children, between birth and ten years of age, is very large, and that the mortality varies considerably with the seasons of the year and with the localities in which they reside. M. Le Comte

Prosper Balbo found that, in the city of Turin, within a period of twenty-three years, the number of children who died under seven years of age amounted to 37,762, and that the amount of the deaths of persons at all ages, for the same period, was 42,638, or as 47 is to 53. He also finishes with a table, showing the mortality per centum in children under seven years of age in different parts of the same city:—

Died in the city	49 in 100
„ in the hospitals	37 in 100
„ in the suburbs	56 in 100

He attributes the increased proportion of deaths in the suburbs to the fact of the children being sent from the city to these places to be nursed.

There is also a table in his book, which is the result of sixty-eight other tables, the elements of which were collected from different parts of France, Italy, Switzerland, Germany, and Holland, and from a variety of places in these countries—as the cities, villages, and entire provinces. He there states the number of deaths to be 1,450,269 : that of this num-

ber 685,031 died under seven years of age, and that 765,238 were above that period. This gives us again the same ratio of mortality of 47 to 53. Dr. Salvatore de Renzi, in his statistical tables of the mortality in the kingdom of Naples, makes the proportion of deaths amongst children, in that country, to be 1 in 9; and that the greatest number of deaths take place between birth and ten years of age.

It is by the demonstration of figures only that we are at all able to come to any definite ideas as to the relative mortality in the early years of life; and when we see the enormous ratio which it bears to that of the more advanced periods of existence, it shows, most palpably, that the evil is more to be looked for in the houses of parents than in external causes.

The most prolific source of mischief to young children is the improper exposure to cold; and this is done very commonly for the purpose of hardening, or, as it is called, "rendering them hardy." The end proposed is good, for it is intended to prevent them from suffering from the vicissitudes of weather, and

that they may be able to bear the variations in the external thermometrical state of the atmosphere, without inconvenience or injury. This is, however, an error in judgment ; for allowing children to go into the open air, when the thermometer indicates a low temperature, without their having proper clothing, will be often the cause of acute illness. They can but very indifferently spare their animal heat ; and when that is rapidly abstracted, which it must be when out in the open air during very cold weather, and but thinly clad, they are not possessed of sufficient vitality to re-supply it so fast as it is dissipated, and a variety of severe and frequently fatal diseases ensue. During infancy, the consumption of oxygen is smaller, and the function of generating heat, so intimately connected with respiration, is much inferior to that which is possessed in more mature life. Any unnecessary waste of vital power should always be avoided, and never wantonly allowed ; for we generally find, that in despite of all our endeavours to prevent it, it will be too rapidly effected, and the child, notwithstanding every precaution, become cold and in-

animate. These effects, in a minor degree, may be daily observed during the inclement seasons, by those who have children, in the numberless chilblains covering their hands and feet, which are the result of too great a loss of animal heat from these parts. If they are very young, the cold speedily carries them off with inflammation of the lungs ; and if older, when so exposed, they have their mental and bodily powers equally affected.

MM. Villermé and Edwards—names both well known as those of highly scientific men—have paid very great attention to the effects of cold upon infants, from birth to three months old, and they have shown most satisfactorily, that in the cold months of January, February, and March, the proportion of deaths among these young subjects is as high as one in seven. It would also appear from their tables, that the extreme of heat was nearly as deleterious. According to some tables given by Dr. William Streinz, of the number of marriages, births, and deaths, in the archduchy of Austria, on this side of L'Enns, and of the duchy of Salzburg for the year 1828, the prevalence of mortality among the

infantile population in those provinces was even larger ; for he gives the gross number of deaths as being 22,177 ; of these, 7402 died within the first year of their age, and 1610 between the first and the fourth. The former, therefore, comprised one-third of the whole number, and the latter only one-thirteenth. This he attributes very materially to the coldness of the climate, and the little attention paid to their infants by the mothers.

Dr. Caffort, of Narbonne, coincides in these opinions of MM. Villermé and Edwards, and states that in that city the mortality of children was 1 in 9·57 ; that it varied in different months, being 1 in 9 in January, 1 in 10 in April, 1 in 17 in May ; and that in the hot months of June and July it varied from 1 in 7 to 1 in 8. These facts fully demonstrate that young children suffer severely, and frequently even unto death, by exposure to extremes of temperature. It has been explained that their vitality is too feeble to resupply the animal heat as fast as it is exhausted by a cold atmosphere, and that disease and death are the results.

The aboriginal natives of North America may be cited as a proof of a contrary opinion,

because we hear of their being strong active men, of a full size and height, and possessed of much muscular agility, and with great powers of endurance. We have not, however, any means of ascertaining the amount of the mortality of children amongst these savages; but as they are fast disappearing from the earth, it is a fair conclusion that it is very large, and that the supply does not by any means equal the exhaustion. It is only children of very hardy and robust constitutions who can, by possibility, live through the privations which are appended to life in its barbarous or savage state.

From what we learn from the accounts of travellers, who have been much in those countries which have long and severe winters, and only short and hot summers, we perceive that the human race are very much beneath the common standard, not only as regards stature, but also intellect, and that their reproductive powers are equally depressed with other corporeal functions.

The mortality which occurs among children in Russia, more especially in the colder provinces, is much larger than would be ima-

gined. M. Herrman, who has furnished us with nearly the only tables upon which we can rely, considered the whole of the population as infantile, which had not attained its fifteenth year: his account is too voluminous to give at length, but the ratio of deaths amongst persons of the above-mentioned period of life at some of the best known places in that empire will prove extremely interesting. He takes his average at so much per 1000: thus he states the mortality in

Courland and Livonia	....	316	per 1000
St. Petersburg	.....	358	„
Astrakhan	.....	402	„
Novgorod	.....	437	„
Smolensk	.....	484	„
Kasan	.....	506	„
Arkhangel	.....	522	„
Moscow	.....	554	„
Tobolsk	.....	656	„

It will be seen by this account that the number of deaths is very much increased in proportion to the coldness of the locality in which the calculation is made: thus, in Cour-

land and Livonia, it is 316 per 1000, whilst in Tobolsk it is 656 per 1000. M. Herrman attributes this excessive mortality to the cold, and considers the north-east wind to be the most severe, and therefore the most dangerous to human existence : he was surprised to find that the mortality amongst children at Kiev was very great, especially as it enjoyed much fertility of soil, and a mild and temperate climate; but on inquiry he discovered that the population were subject to privation, especially as the larger proportion were mechanics. In Russia, as in all countries which have made but small advances in civilization, the mortality amongst children exceeds that of all ages united. M. Herrman thinks that this is attributable to their being either insufficiently fed, or improperly clothed, so as to be unprotected from the inclemency of the weather ; and from their not receiving that care and attention which they both require, and have in in other parts of Europe.

These tables shew us to a demonstration, that the lives of the infantile part of the population are held upon a very fragile tenure, and that it is materially augmented in countries

which are liable to suffer from very depressed conditions of the thermometer : also that when, from poverty or other circumstances, mothers have been negligent of their offspring, the number of deaths has been very great. In England, about one quarter of the infants born, die before they have completed their first year, and one-third before they reach five years of age ; and in Lancashire, 36 per cent. of males, and 31 per cent. of females, never accomplish two years. Mr. Robertson's table, as given by Dr. Bisset Hawkins, makes the mortality amongst children very large, but not quite so appalling as the above : it is as follows :—

Under one month	1 in 14
Between one and two months ..	1 in 17
„ two and three „	1 in 26
„ three and six „	1 in 10
„ six and nine „	1 in 9
„ nine and twelve „	1 in 10
„ one and two years	1 in 4
„ two and three „	1 in 8
„ three and five „	1 in 9
„ five and ten „	1 in 13

Dr. Southwood Smith, in his "Philosophy of Health," quoting the authority of Mr. Finlaison, makes the mortality of children from birth to one year old, as one in five and a fraction.

Children should never be allowed to go out in the open air when the thermometer indicates a very low temperature, unless they are well wrapped up ; and young infants should never, under any circumstances, be exposed to the cold of winter. It will not so readily affect those who have attained sufficient age and strength to keep themselves warm by exercise, but even these will, in severe seasons, run considerable risk of attacks of pulmonary disease ; therefore neither the one nor the other should attempt to face the weather, especially when cold winds prevail, unless well protected from them.

When Capt. Parry visited the Arctic regions, both himself and crew had occasion to remark the difference between their own sensations and the indications of the thermometer. They bore very readily a temperature considerably below the freezing point, when walking in the open air in calm weather ; but suffered

severely from cold during a breeze, be its direction what it might, and notwithstanding the thermometer stood at a much higher temperature than when in a more quiescent contrary state. If, therefore, hardy sailors endured so much in windy weather, and when so well protected from its influence, how much more must poor little children undergo, whose constitutions are so delicate, and so unfitted for such exposure !

CHAPTER III.

Clothing. — Cleanliness. — Warm and Cold Bathing. — Nurseries and Ventilation.

Too little attention is in general given to covering the legs of both boys and girls, and more especially of the latter ; for although it has of late become the fashion to put them into trowsers, this article of dress is generally made of such materials as serves to cover their extremities, without being in any way calculated to defend them from the cold. During the most inclement seasons, the frocks or coats of both should consist of woollen, and that of sufficient substance to prevent the loss of animal heat from the body.

The trowsers of the boys should be of the same texture, and lined throughout : those of the girls should be made of jean, over which

must be placed a flannel petticoat ; and boys, until they are breeched, should have flannel drawers. The stockings had 'best be of fine lambs' wool. More attention ought to be paid to the shoes of children than is usually done. In the first place, they should be made well, and to fit the feet, so that they may be neither too short, nor too tight across the instep : if too short, they displace the toes, and make them ride over each other, and are also apt to cause sore heels, and interfere with the proper expansion of the foot, by not allowing the flexors of the toes to make prehension. If too tight across the instep, they press upon the plantar arch, and impede the extensors of the toes in their functions.

Children, from following the vanity of others, will, if not attended to, choose shoes which are very much too narrow, and this inconvenience they will bear for some little time, often at the risk of producing mischief from pressure upon the bones of the foot : they should never be allowed to wear any but strong shoes out of doors, the soles of which should consist of good stout firm leather ; for when spongy, it only absorbs the wet, which

it keeps constantly applied to the soles of the feet ; for this reason, shoes ought always to be made by some respectable shoemaker, and not bought at sale-shops.

Boots are not requisite for young feet, but, on the contrary, are injurious, as they confine them whilst growing, and do not allow of unimpeded ligamentous motion. As a proof of this, one of the means most usually adopted for making pressure upon ankle-joints, when shewing a tendency to deformity, is a pair of stiff boots.

Sir Charles Bell illustrates this fact beautifully in his little treatise upon Animal Mechanics :—" Look," he says, " to the legs of a poor Irishman travelling to the harvest with bare feet ; the thickness and the roundness of the calf shew that the *foot* and *toes* are free to permit the exercise of the muscles of the leg. Look again to the leg of our English peasant, whose foot and ankle are tightly laced in a shoe with a wooden sole, and you will perceive from the manner in which he lifts his legs, that the play of the ankle, foot, and toes, are lost as much as if he went on

stilts, and therefore are his legs small and shapeless."

Whenever the weather is favourable, children should be allowed free exercise in the open air, as if too much confined, they become peevish, and lose their appetites and animal spirits.

During the summer they should be apparelled consonantly with the season; for it may be seen by the previously quoted tables, that they suffer, although not so greatly as in winter, considerably during this portion of the year.

Children apparently sustain extremes of temperature very badly; for we find the mortality amongst them is larger, either during the intense cold of winter, or the great heats of summer: they should always, therefore, have their clothing made appropriate to these changes. Many parents make a point of enveloping their offspring in flannel so soon as they are able to run alone, and often before: the employment of this covering may be abused as much as neglected, and persons should not forget, that when once flannel has

been placed next the skin, it cannot be discontinued without incurring considerable risk. Unless, therefore, children are liable to pulmonary attacks, or shew evident predisposition for weak lungs, or have a very enfeebled constitution, the wearing of flannel next the person had better be avoided : if, however, its use should be decided upon, much care should be taken that its texture be fine, otherwise it will be productive of considerable irritation, which to the tender skin of a child is both exciting and annoying. The flannel waistcoat should also be changed every night, that is, the same garment which has been worn during the day, should be succeeded by another at going to bed, and these should be replaced by clean ones every week : this constant change is particularly necessary for children, who, from running about so much and so constantly, inordinately excite perspiration.

An entire resupply of body linen is absolutely requisite at least twice within the week, and this equally relates to their night gear as to those they wear during the day. These little beings demand that great attention should be paid

to their cleanliness, for upon that, in a great degree, their health depends. This is very readily illustrated by simply looking at the children of the poorer class, to whose comforts, more especially as regards cleansing, so little, if any, anxiety has ever been evinced : they are generally observed to be shorter in stature than children of an equal age on whom more care has been expended.

Nurses are always peculiarly sollicitous that their young charges should at all times appear before company in clean frocks and pinafores ; they should, therefore, remember that the linen which comes in constant contact with the skin, requires by far more particular attention than either the one or the other.

STAYS.—Girls should not be allowed to wear any species of artificial support, having the form of stays, whilst they are growing. The bones at this early period are scarcely to be looked upon as being worthy of their name, but are principally composed of cartilage or gristle. Whilst in this condition they are extremely plastic, and are very readily encroached upon by any appliance which may be harder than

themselves. Stays, therefore, containing only a moderate portion (this is speaking with reference to the stays of adult females) of whalebone, will enroach upon the soft and ductile ribs, alter the form of the chest, and produce disease, which, if nature had been left to herself, would have been avoided.

The bed-clothes demand as frequent removal, in proportion, as the wearing apparel.

More than two children should never be allowed to occupy one bed, and this only when they are very small.

The clothes should always be drawn down to the foot of the bed immediately on rising in the morning, so as to leave it open, and should be so left for some time before it is again re-made. Excepting when quite infants, children had best not sleep upon a feather-bed. A good horse-hair mattress and pillow or bolster are far preferable ; they allow of the excess of the animal heat passing off more readily in summer, and yet keep the sleeper quite sufficiently warm in winter. Besides, where there is the slightest tendency to congestion of the brain, horse-hair is very important, from its being very much cooler.

By lying on feather pillows, the head is soon surrounded by them, which keeps up the animal heat, and does not allow of its passing freely off. Until that period of their life be passed which is supposed to predispose to brain affections, they had better sleep without nightcaps. This is very strenuously objected to by most mothers, partly under the idea that they are thereby rendered more susceptible of cold, and also from its spoiling the appearance of the head of hair. The first impression is erroneous, because a want cannot be felt where it has never been suggested; and with regard to the second, all fear may be laid aside, as it certainly never can in any way prove injurious to the hair.

Children will always regulate their own temperature in bed during the summer months, according to their convenience, by most unceremoniously kicking off the bed-clothes. In winter, however, they require considerable attention in this particular, and especially so, as the power of generating animal heat varies in different constitutions. It is essential to see that they have sufficient covering on their beds to prevent their being chilly or cold

during the night, at the same time that it is equally desirable to prevent them from lying under too much clothing, and accumulating an excess of animal heat, to be afterwards dissipated by perspiration.

Curtains are not necessary, excepting at the upper part of the bed, so as to prevent any current of air from passing across the head and chest of the sleeper; but they are absolutely noxious when made entirely to surround it. French beds are, therefore, for this reason, to be preferred.

Very young children should never be permitted to lie in the same bed with adults; it is, therefore, extremely injudicious to select elderly females to take charge of infants, as it is highly pernicious to these young creatures to sleep with aged persons. It may be imagined that not any good or sufficient reason can be given for this prohibition, but it is not the case; for a very little consideration will at once shew the impropriety. Without going very deeply into the anatomical and physiological changes which take place in the human body with increasing age, it may be as well to quote a few observations made by Dr. Roget,

in his admirable article upon Age, in the *Cyclopædia of Practical Medicine* : — “ The temperature of the body is probably lower in old age than in youth. An explanation of this fact has been sought for in the diminution of the quantity of fat, which, by its non-conducting properties, prevents the escape of heat from the body ; but it seems more reasonable to account for it by the decline both of the nervous powers of the circulation, and the nervous energy in general.” It is a well-known law, that when two bodies are in contact, one containing a large proportion of heat, and the other a minor quantity, the one having the most will part with it to the other possessing the least, until both have acquired the same degree of temperature. It is, therefore, quite obvious, that from the bodies of elderly persons having so much less animal heat than those of children, they will abstract the overplus from them to supply their own deficiency. This can be but ill spared by infants, and yet, if in close contact with the aged, cannot be avoided.

There is yet another circumstance which deserves our attention. Dr. Roget says, that

young children pass sixteen hours out of the twenty-four in sleep; adults, seven or eight hours; but aged persons seldom more than five or six. Age, therefore, whether it requires it or not, enjoys only a very small quantity of sleep; whilst, on the contrary, infancy not only wants, but consumes, a material portion of its time in a state of actual repose. If the nurse cannot sleep, the child must be awakened constantly by her restlessness; and this, if persisted in, will destroy the health of the infant: in addition to this, the excretions of those advanced in years become altered, and in many instances very offensive, and which, in all probability, are highly noxious to infantile health. If too many persons be crowded together, whether infants or adults, into one sleeping apartment, the air soon becomes depraved, and incapable of fulfilling the action of sanguification. This vitiates the blood, interferes with the functions of the body, puts a stop to its growth, and interrupts the development of the mind.

PERSONAL CLEANLINESS.—Children when

well, from their naturally active habits, always collect a very large quantity of dirt, which is accreted to the skin by perspiration, poured out in abundance during exercise. Such an accumulation should never be permitted to remain during the night: it ought, therefore, to be removed before they go to bed by a good washing with soap and warm water, applied unsparingly, over the entire body. Care should be taken to get the soap well off, and this can only be completely accomplished by immersing the whole surface of the skin in warm water. A tin bath is the best vessel for this purpose, and which should always form a piece of necessary nursery furniture. A most erroneous impression has gone abroad, that warm bathing enfeebles the corporeal powers: it does no such thing; but, on the contrary, strengthens them, by removing from the pores of the skin any inspissated excretion, mixed with dirt, which may happen to obstruct them, and which would materially tend to impede their functions. Without making any erudite quotations, we may learn from the customs of both the Greeks and

Romans, before these nations became enervated by that luxury which subsequently destroyed them, that they looked upon the use of warm bathing as being a necessity almost amounting to a duty, and they gave their citizens every means of performing their ablutions by the erection of public baths.

All oriental nations have the same partiality for their use, not solely on account of the religious practices with which they are associated, but also from the great personal comfort yielded by their employment.

Bruce mentions, in his *Travels*, that after experiencing great lassitude and fatigue from journeying in the heat and dust of the deserts of Arabia and Abyssinia, he found more permanent refreshment and relief from the tepid bath than he ever did from plunging into cold water.

Most persons have, at some time or another, experienced a stiffness of limb, consequent upon fatigue, and also have remembered, with satisfaction, the alleviation they have received from this inconvenience by the use of the warm bath: when we, therefore, recollect how con-

stantly and perpetually the muscles of the legs and arms, perhaps we may say of the entire body of children, are in motion, it may be rationally inferred that they, perhaps, may suffer in a like manner, and be similarly refreshed and relieved by their evening tepid bath. Therefore, upon the principle of administering to their comfort, as well as for the purposes of cleanliness and attention to health, the daily use of warm bathing is imperiously called for. Some mothers prefer washing all over in the morning; they may do this as well, if they think it right, but the evening cleansing should, nevertheless, be invariably performed; for they may rest satisfied, that permitting a child to seek its bed with a skin overloaded with dirt and insipidated perspiration, can conduce neither to its health nor its pleasure.

M. Gendron, in a paper in the sixth volume of the *Annales d'Hygiène Publique*, speaking of the reason of the inhabitants of Le Pays Vignoble being weaker and less in their stature than those living in other parts of France, and even in the same department, attributes it to the neglect and sad want of

cleanliness they experienced from their mothers during infancy. After being hastily fed in the morning, and again at mid-day, they are laid in bed ; during the intervals the cottage-door is locked, and they are left to themselves. The following are his concluding words :—" Les enfants reçoivent donc à la hâte une nourriture souvent mal préparée ; l'abandon dans lequel on les laisse une partie de la journée, et quelque fois l'oubli des soins de propreté, si nécessaires à cet âge, empêche le développement de leurs forces ; beaucoup languissent, se remettent difficilement, et conservent une constitution très-délicate." He concludes by saying—" Les décès des enfants sont assez généralement plus nombreux dans les communes de nos cantons vignobles."

The greatest possible precautions should always be taken that the skin be well dried, and most especially about the face, as many diseases of the eyes are caused by this being neglected.

Much difference of opinion exists as to the utility of immersing children every morning, so soon as they leave their beds, in water of

the common temperature of the atmosphere. The supporters of this practice advocate it upon the principle of its invigorating the system, and rendering it peculiarly inaccessible to the attacks of disease. Every one will allow, that under proper guidance cold water is one of the most powerful tonics ; but, like all other potent remedies, it becomes injurious in the hands of the ignorant and empirical. We occasionally hear of children who have been subjected to this regimen from infancy, and have lived and even thriven.

These cases are therefore adduced in evidence of its efficacy; but the number of those who have either not succeeded so well, or who have been compelled to abandon it from its bad effects upon their constitution, are carefully concealed.

This is one of the hardening processes which some parents oblige their offspring to undergo, and which seldom, if ever, answers the purposed end. It has already been shewn that children support but badly the loss of animal heat ; and when exposed to a diminished temperature, part with it rapidly. In proportion as this (animal heat) is quickly

expended, so is vitality diminished; and although this may only be temporary, yet it causes considerable trouble to the system to refurnish it. Should these calls be frequently repeated, more difficulty will be experienced in supplying it, and a greater length of time expended in its accomplishment.

When the body is plunged into a tub or bath at 45° Fah., which cannot be looked upon in the winter as being cold, the body receives a sudden shock, and parts with a portion of its animal heat; the blood is driven internally by the constriction of the superficial vessels, and thus the heart and lungs become overloaded, and diseases of these organs frequently ensue. This is particularly observable in children who are the reverse of florid. Where they have been dipped in cold water early in the morning, they will be found languid and inert during the whole of the remainder of the day; the pulse feeble, and the whole nervous system so shaken, as to be unable to rally against the shock it has received, the child's countenance remaining shrunken and pallid, and exhibiting unequivocal signs of suffering. This is entirely

owing to the want of the re-action, or glow; and this deficiency of the nervous energy is especially injurious to children who are disposed to inflammatory affections of any of the viscera, but especially of the heart, lungs, and brain. To give rise to such a condition of the body cannot in any way be conducive to its health. Some children are from birth endowed with greater corporeal powers than others, and consequently more capable of sustaining or withstanding these shocks upon their system. These, however, are but few, and are confined to those who possess a quick circulation and florid complexion; in these the reaction is rapid, and the expenditure of animal heat small. With such children, immersion in cold water may, perchance, prove serviceable; but in others it is positively mischievous. This practice is, however, neither so immediately nor so actively deleterious as the constant exposure to a low atmospheric temperature; but by its frequent repetition it will ultimately prove as fatal. Many adults, who otherwise are endowed with robust health, are unable to plunge into cold water without suffering severely from loss of animal

heat ; and, notwithstanding all their endeavours, are a very long time in regaining it. If, therefore, persons enjoying the use of their mental and bodily powers to the full, find the resupplying of this loss so tedious and painful, what must be the injury done to children, who, from their tender age, have no such resources ?

NURSERIES.—The proverb of evil communications, &c. is peculiarly applicable to children when of sufficient age to observe what is passing between others, and of administering to their own amusements. They will, for a certainty, acquire the forms of speech as well as the manners of those with whom they so constantly associate ; and, in addition, numerous derelictions from the moral code, which will afterwards with great difficulty be counteracted, if, indeed, they should ever be entirely eradicated. The servants upon whom the care of the nursery devolves, like others of their class, spring from the lower grades of society ; and, notwithstanding all the pains which a mother may take to obtain the services of the most re

spectable, yet will they always, more or less, retain the methods of thinking, acting, and speaking, which belong to their origin ; and which it can be readily conceived are not the best models upon which it is desirable to frame the susceptible, inquisitive, and retentive minds of children. In like manner that they acquire the forms of expression, so will they imperceptibly imbibe their manners. Another annoyance, which arises from the confinement of children to nurseries and the society of servants, is that of making them shy, and often peevish and fearful, when, either by accident or intention, they are brought into the presence of strangers, equally to the molestation of both parties.

There are many attacks of illness, which, if taken notice of at their commencement, would be but trifling, but assume a serious character by being neglected. A mother's eye will always detect any alteration, however trivial, in the appearance or behaviour of a child, and which would not attract the notice of others less interested ; for, however attentive servants may be, generally, to the condition of those entrusted to their management,

they will yet often attribute the altered demeanour to fractiousness or sullenness, when, in fact, it arises from the commencement or presence of disease.

If children are, therefore, kept separated from their mother by being restrained within the limits of a nursery, they become rude in her absence, and are shy and constrained in their demeanour in her presence; acquire habits and forms of speech of which they will afterwards repent the possession; and prefer the society of their nurses to all the fond and gentle endearments of their parents.

Both the sleeping and play-rooms of children should be carefully ventilated, and should always be lofty; but if that is either difficult of attainment, or altogether impossible, it should be compensated by their having an extra number of windows. Children, like young plants, require an ample supply of air. In the spring and summer months, the temperature of these apartments should never, if possible, exceed 50° or 55° Fah. In winter 60° should be kept up during the day and evening, and when the children are very young it may be continued during the night.

When older than three years, they will most generally keep up a proper and comfortable degree of warmth in bed, by sinking down under the clothes; they thus inhale a warm atmosphere from their own bodies, and preclude the necessity of any external artificial heat.

The sleeping rooms require scouring twice a week in the spring, summer, and early part of autumn, and once within the same period in the winter. During the absence of the inmates, the windows should be kept open as long as the weather permits, and a free circulation of air encouraged. It is, therefore, a matter of very great moment to have an open chimney in each room, although it may never be used as a flue, as it will cause the transit of a thorough draught of air through the apartment.

All windows are to be carefully closed before night-fall. Children must never be permitted to be laid down to sleep, either with a thorough draught of cold air blowing across them, or in a damp room; neither on any account whatever should their sleeping apartments be on the ground floor.

Where it is impossible to have both a day and night nursery, the latter should never be used either to play or live in constantly : for if rooms are always inhabited without ever being vacated, they become extremely unwholesome, and frequently noxious to human health. We see this very often in the offspring of the lower classes, the early periods of whose existence, that is, before they are able to run alone, and thus make their escape, are passed entirely in one room, the air of which is being constantly vitiated by the respiration of its inmates, and the combustion of the fire, without being sufficiently and properly resupplied—a matter of some difficulty in the narrow lanes and alleys, and densely peopled neighbourhoods, usually the locations of this part of our metropolitan population.

CHAPTER III.

*Nursing—With the Mother's Milk—Feeding—
Observations on the different qualities of Milk
—Wet Nursing.*

No sooner does the new-born child see the light than it appears to seek for nutriment. This desire is implanted in it by nature for the fulfilment of the end which she has in view—that of raising it from a state of helplessness into one of self-reliance and independence. To perfect this, the infant passes nearly the whole of its vegetating existence in obtaining nourishment from the breast of its mother, and digesting what it has taken. Its attention, from the imperfection of its senses, is not distracted by surrounding objects or sounds; and no sooner is its appetite satisfied, than it falls off into a state of tranquil sleep, and does not again awaken until

called upon to satisfy the cravings of nature. This is the usual condition of a healthy infant.

Some difference of opinion has arisen, as to whether it is best to give a new-born babe the breast so soon as the mother is laid comfortably in her bed after her accouchement ; or whether it is preferable to let it wait some hours before it should be permitted to take the breast : some assert, that the infant will suck immediately after its birth, on being offered the nipple ; whilst, on the other hand, others deny this, and say that it will not attempt to draw the milk for more than twelve, or even twenty-four hours after birth. The best guide is the state of the mother's health ; if there be not any physical objections, it is better to apply the mouth of the child to the breasts as soon as possible, as by that means the milk will be drawn into them much sooner than if the stimulus of suction had not been employed. The first milk is allowed by all midwives to be purgative in its effects ; and as this is much needed by the child, there can be no reasonable objection to its being taken by it. Should this not be practicable, the infant may be fed with a little

warm milk and water, slightly sugared, which is far preferable to water gruel—the usual substitute upon such occasions. In all cases, however, where it is necessary to administer other substance than is supplied and intended for them by nature, great care should be observed that the quantity be but small. This caution is particularly needed, as if too profusely given, the stomach will frequently expel it; or should it pass into the bowels, will give rise to the spasmodic pains of colic. Nurses, therefore, should be particularly guarded upon this point.

The mother's milk is certainly, during the early periods of life, the most proper sustenance for an infant; and, whenever there is a sufficient quantity, there cannot exist a reason for over-loading the poor little being's stomach with even a small portion of strange, and consequently incompatible, aliment. The practice of feeding new-born children with farinaceous, and therefore extraneous diet, is one of the inconsistencies of the human mind. Mothers who have been recently confined, and even when their infants are some months old, are extremely anxious first to have, and

afterwards to keep up, a full and good supply of milk. By this they tacitly acknowledge that the nourishment furnished by themselves is the only one intended by nature for their offspring. Why, therefore, should they, in defiance of their better feelings, and contrary to the dictates of their own good sense, cram down the throat of these poor little creatures a quantity of food, at which, at that early age, they have not the power of expressing disgust, and which is at the same time highly improper? They do it, in the first place, because as is much to be regretted, it is the fashion to feed them; and secondly, because they allow themselves to be swayed by the positive, confident, and constantly repeated assertions of their monthly nurses. France and England seem to be nearly the only countries in which it is the fashion to entrust infants to the care of strangers. In Holland and Germany especially, mothers take a pride in supporting their own offspring.

It is much to be lamented that it should not afford them the same gratification now, as it used to do. We find that Varillas, an author quoted by Bayle, in his Dictionary, in speak-

ing of the life of Louis the Ninth, commonly called St. Louis, mentions a trait in the character of his mother, Blanche of Castille, which is well worthy of imitation. The Queen being very ill with an attack of fever, and unable to give nourishment to her son, a lady of the court, having followed her example in nursing her own child, and perceiving the infant Louis suffering from thirst, and thinking at the same time to please the Queen, gave him her breast. Shortly afterwards, Blanche having recovered from the febrile paroxysm, offered little Louis her own, which he refused. Suspecting the truth, she feigned gratitude to the person who had supplied her place. The lady, with the intention of making her court to the Queen, acknowledged what she had done, alleging she had been unable to resist the tears of the child. Instead, however, of being grateful to the lady for her kindness, the Queen put her finger down the throat of Louis, and caused him to be sick, saying, she would not suffer any person to share with her the duty of a mother. Many a delicate female whose supply of milk has been but scanty during the first

ten days after delivery, has been entirely deprived of it by the nurse making up her mind that her mistress would never have any, and that the baby must be brought up by hand. She therefore immediately after coming to this conclusion, commences feeding the child, maintaining, "that it is perfectly useless applying it to the breast, as it is only labour lost." This is not the only mischief arising from such a practice. There is at all times great sympathy existing between the stomach and the brain, and which is peculiarly active during the first years of infantile life: if the one is over excited for any lengthened period, the other most certainly and readily sympathizes with it; and convulsions, often attended by fatal consequences, are the result. Cases have occurred in which cataract in both eyes has succeeded to these irritations of the cerebral system.

Gruel, arrow-root, tops and bottoms, water-pap, and panada, are usually the articles selected to form the diet of a new-born infant. These are all very well, and not only harmless but agreeable to the digestive organs of adults, but are little less than poison to the tender

mucous membrane of these viscera in a child.

It must be evident to every reflecting mind, that the stomach of a new-born infant is very susceptible of irritation; that the milk of the mother, a bland, oleaginous fluid, must differ, *toto cælo*, from the vegetable concoctions, which, from their indigestibleness, become acescent, gripe the child and lay the foundation for future misery and disease. But these aliments, however inconsistent, have so taken hold of the minds of all parties having to do with the nursery, that it is nearly a fruitless endeavour to dissuade them from continuing their use.

These time-hallowed improprieties are so bound up and connected with the paraphernalia of nursing, that its mysteries would be incomplete without them.

Notwithstanding, a very little consideration would show, not only their absolute inutility, but their positive unwholesomeness. They do not contain one single particle in common with the mother's milk—the nourishment which on all hands is allowed to be the best fitted for the support of the infant; added to

which they are indigestible, and act as stimulants to the child's stomach, causing flatulence and acidity: these, on passing through the pylorus into the small intestines, stimulate the ends of the gall-ducts, and induce them to pour out a superabundance of bile, and on getting further down into the intestinal tube, violent gripings are the consequence, and the child becomes agonized and restless.

If therefore, unfortunately, the mother, either from want of milk, ill health, or any other consideration, is incapable of nursing her offspring, she ought in duty to supply it with either another breast of milk, or with such a succedaneum as shall approach it as nearly in all its properties as possible.

The milk of various animals has been from time to time proposed to supply the want of the mother's breast; and of these, the most common is, that of the cow, the goat, and the ass. It may be as well just to mention, before looking minutely into the different characters of these, that the old nurses will universally decry the practice of giving the child any other milk than that of the mother, although her quantity is not by any means adequate for

its nourishment. Their tradition is—"That the two milks will never agree together in the stomach." Yet, notwithstanding there is not the slightest foundation for this assertion, it operates with some mothers, and they still permit the continuance of the cramming of the poor little infant with the most noxious and improper diet, rather than disbelieve the vaunted experience of the nurse.

Cow's milk, as procured out of London, is much richer than that of the human female ; but the milk of a well-fed and well-conducted woman is more appropriate, and better for the human subject, than any cow's milk that can be obtained in the metropolis.

Like all other animal secretions, this must vary in both quantity and quality, with the health of the animal supplying it.

Well-fed cows, breathing a good air, furnish a very large supply of milk per day ; while, again, others which are confined in stables and sheds, located as these most usually are in low neighbourhoods, yield a much less quantity, and that of an inferior quality. Like human beings, they suffer very materially from the want of exercise and fresh

air. They are liable in this confined state to attacks of a disease called *La Pommelière*, by its discoverer, *La Billardière*, and which resembles consumption in the human being. Notwithstanding they are so affected, M. Huzard tells us that they continue to afford the same quantity of milk. On its being chemically examined, it was found to contain by seven times a larger proportion of phosphate of lime than it should have done had it been furnished by a healthy cow. The knowledge of this fact ought to make us very careful in the selection of the milk which is daily used; and although we may experience some difficulty in finding it pure and genuine, a little care will enable us to avoid taking that which we know to be bad. Where, therefore, it is required for the food of a very young child, great attention should be paid to its being procured from the most approved source.

Cow's milk, next to that of the sheep, contains the largest proportion of cream, or butyraceous matter, and in which resides its nutritious property; and this increased or diminished by both the nature of the pasture and the extent of liberty enjoyed by the

animal. Much also depends upon the quantity of milk which is daily furnished by the cows; for it has been observed by Dr. Young, that those which produced the largest quantity of this fluid by measure, yielded a very much less portion of cream, and that in all his experiments he uniformly found that the less the actual supply of milk, the greater the proportion of the cream.

Human milk stands next in its nutritious properties to that of the cow, but it contains more sugar; and varies also in its quality from constitutional and other causes—as health, food, and modes of living. Much discrepancy of opinion has arisen amongst medical men, as to whether the milk could be affected by the conduct of the mother, and it is most strenuously denied by Dr. Cullen; it is now, however, known for a certainty that many substances received into the stomach affect the milk, as saffron, which will colour it yellow, madder red, and indigo blue. Purgatives swallowed by the nurse act upon the child; and Dr. Hamilton, the father of the present Professor of Midwifery in the University of Edinburgh, obtained mercury from the

milk of a woman who was salivated during her lactation.

Females who are addicted to the use of ardent spirits, to a certain extent render their milk alcoholic during suckling ; and although only a small portion of the stimulant passes into the secretion, yet that it does so is commonly known ; for it is a frequent recommendation from one woman to another, when a child is suffering from flatulent colic, to take a small quantity of spirit diluted with water, and thus administer the cordial to the babe through the medium of her own milk.

It is also understood by mothers, that it is their duty during lactation to avoid eating any species of vegetable or fruit, which from either their liability to produce acid, or their indigestibility, originate griping in the infant.

With these instances of an altered state of the milk caused by ingesta into the stomach, and with the fact of a chemical change being produced in the secretion of the cow by diseases, is it not to be fairly inferred, that nurses who are unhealthy may, and do impart their maladies to the infants nourished at their breasts ? The pommelière in the cow, which

very much resembles phthisis pulmonalis in the human being, does not apparently injure the secretion of the milk as regards quantity, although it is materially altered in its chemical composition ; it is, therefore, but a just inference, that an equivalent change may arise in the mammary secretions of a consumptive female, and that she may impart either the disease, or a strong tendency to it, to the being she is nourishing. The like may occur in other disorders, although it has been asserted by writers, that where an epidemic has been raging, and mothers having infants at the breasts have been attacked, that the child has continued to draw its sustenance from its parent without in any way suffering injury.

Generally speaking, however, the nurse who is diseased will communicate her malady to the infant ; and the metaphysicians go so far as to assert, that the habits of the mother, if not strictly correct and moral during the time she is enceinte, will descend upon or contaminate the child in after-life. Sufficient has been shewn to substantiate the necessity of only using the very purest and best milk that can be possibly procured.

The subject of Wet-nursing will be afterwards considered.

Goat's milk is not readily obtained in this great city, and is, from the same causes, more liable to objection than metropolitan cow's milk. These poor animals are generally kept by persons living in low neighbourhoods; and although allowed to range about in the day-time, their liberty only extends to streets, lanes, or alleys, in which they breathe little else than a vitiated and unwholesome atmosphere, at the same time that they pick up all sorts of extraneous and improper food: upon returning to their owners, they are shut up in some little miserable shed, or confined in an equally unwholesome stable, in company with horses. Goat's milk is therefore, generally speaking, not to be gotten; but if it could be readily procured, it is in its nature less butyraceous than either that of the human species or the cow, and is more acid than either.

Asses' milk, from its supposed resemblance in its nutritious qualities to that of the human species, has become a very fashionable article in the diet of children; this fancied similarity

does not, however, exist, for it is not nearly so agreeable, and very much less nutritious, than that obtained from the human breast, and is therefore but ill suited to supply the cravings of an infant, to satisfy which a far larger proportion must be taken than would be drawn from its nurse.

The very best substitute for the breast-milk, where the mother, either from her own deficiency is compelled to seek for sustenance for her offspring, and objects to trusting it to the charge of a stranger, or where the procuring a wet-nurse is a matter of difficulty, is good cow's milk, lowered with about one-third part of warm water, and to this must be added a small portion of refined sugar: care should be taken not to make it too sweet, or it will otherwise derange the stomach of the child. It is not advisable to use a spoon in feeding, as it is sure to convey wind into the stomach, from the action of the lips in the act of taking the food into the mouth. It is much better, as Sir Charles Clarke says, "to let them work for their living;" that is, let them draw the nourishment from a bottle: there are a variety of appliances for this purpose, but the

most cleanly, and the best adapted in every respect, is one made of ivory, which is introduced by means of a screw through the centre of a phial cork, which when fitted to the mouth of a common half-pint phial, the feeding bottle is complete without any further trouble: so soon as it is emptied, the cork must be taken from the bottle, and together with its appendages thrown into clean water*. The teats made of chamois leather, and even those which are prepared from the calf, are liable to become offensive, notwithstanding the greatest care. There are one or two advantages accruing from the use of the ivory, which are, that the child cannot have too large a quantity of food pushed down its throat; that it is out of the power of the nurse to put any thickening into the milk; and that it cannot be given too hot, for as it will not flow from the bottle without suction, the child will refuse to apply its lips where it finds them scalded. Many instances might

* These artificial ivory nipples are to be obtained of Mr. Wilkinson, Chemist, Picket Street, Strand; and Mr. Purser, 40, New Bridge Street.

be named in which children have been reared solely upon this kind of nourishment, and without the addition of any thing more solid; and not only have they lived, but thriven well, upon it. On the contrary, there are but very few children born possessing such constitutions as enable them to resist the bad effects produced in their systems by the constant use of solid food.

WET NURSING.—It sometimes occurs that the mother has an insufficient supply of milk, or that it is poor and thin, and not nourishing; so that, instead of thriving upon it, the child loses flesh daily. This may happen within the month, and it will then be attempted to bring the child up by hand, which failing, recourse must be had to a wet nurse. Mothers, however, speaking generally, have a great objection to trusting their infants to the care of strangers, many of whom are of but doubtful morality. Besides, it may be fairly inferred, that a woman who would abandon her own offspring to give its nourishment to another, cannot be possessed of much maternal tenderness, and is, there-

fore, very unlikely to expend upon the progeny of a stranger that which she has denied to her own. In selecting a person for this purpose, strict inquiry should be made as to the age of her own child; because it is of paramount moment that she should not have been a mother any length of time previously to the birth of her intended charge. It must be consonant with reason, that a breast of milk at three months is improper for the support of an infant of a few weeks old; as from such a source it is by far too substantial for a stomach only just commencing its functions. It should, therefore, try the supply of its new nurse for a few days before she is regularly engaged, to enable the parents to ascertain how the milk agrees; for it not uncommonly happens, that instead of nourishing the child, it will often materially derange it. Another great reason for inquiring particularly the time which has elapsed since her accouchement is, that if that has long passed, it may not be improbable that she is again enceinte; and should such be the case, the milk, both in quantity and quality, is rendered totally unfit for the sustentation of the infant.

The best age for a wet-nurse is between 23 and 35 ; if either younger or older they have not an adequate supply of milk. Women who have not been mothers before 25 years of age, make the best nurses. Those having red hair, or a tendency to that colour, are not by any means so desirable for this purpose as others having a fresh colour and brown hair. Neither should they be too fat nor too tall, but moderate in both respects.

M. Payen, in the 4th vol. of the *Journal de Chimie Médicale*, gives the results of several experiments made with the milk of different women at various periods of their lactation, to shew the effects of it upon young children.

“ One was a woman who had been brought to bed about seven months, good looking, of a sound constitution, but only suckling with one breast ; was put upon the diet recommended by the medical man as best suited to nurses.

“ A child of seven months and a half old, tolerably thriving, but having suffered in a degree from too small a supply of milk during the first months of suckling, on account of the accidental failure of the secretion in several nurses to whom it had been successively

given, and being obliged to abandon the last before another could be procured, was fed during ten days, by the aid of a feeding boat, with thin oatmeal gruel, mixed with a tenth of its volume of goat's milk. Of this, it took four portions in the day, and two in the night, making about a pint (French) in the 24 hours. During this time the infant went on very well, and the interval was employed in seeking for a better nurse than those preceding, and at length by the advice of the medical man this woman was selected.

“The child sucked with avidity, and the milk flowed abundantly: notwithstanding this, after the third time he appeared stuffed up; on quitting the breast the mouth remained wide open, and he was unable to smile, as he had been wont to do. During the night his sleep was much disturbed, and in the morning the digestion was evidently greatly disordered. The medical man, however, considering this to be a casual indisposition, and not serious, ordered him to continue with the same nurse, but not to remain at the breast longer than three minutes together.

“ The next day the child suffered worse than the preceding : not only was his temper altered, but his countenance also. During the following night frequent vomitings occurred, which were succeeded by faintings. The milk of the nurse was now examined chemically, and was found to contain a much larger portion of nutritious matter than the child's stomach could digest ; and that it flowed so abundantly, that in two minutes more than eleven-tenths of a pint was obtained. On this being represented to the medical attendant, this nurse's milk was discontinued, and in a few days the infant regained his health.”

The same child was afterwards put to another nurse, whose supply of nourishment was neither so abundant nor so rich, and the result was, its continuing perfectly free from similar attacks. This will serve to shew the necessity which exists for carefully examining into the actual condition of the nurse's milk as well as its age ; and, in addition, ascertaining minutely her temper and habits.

It will be seen by the above case that infants will not thrive, but the contrary, upon

milk containing too large a quantity of buty-raceous matter, and therefore nutritious substance. That it is consequently unnecessary to pamper the appetites of these women, lest the food of the child should be rendered deficient in either quantity or quality; and although they ought to have a full supply of good diet, they need no extra indulgence in either eating or drinking.

As it has been proved that nurses have communicated diseases to children of whom they have had the charge, it is a very necessary precaution that they should be examined medically as to the state of their health. There are also some maladies which are not generally considered to be either infectious or contagious; yet it is not improbable that they might be communicated to the child through the medium of the nurse. It has already been shewn, that the milk of the cow becomes altered in its chemical composition by La Pommelière: it may therefore be concluded that, *cæteris paribus*, this secretion may, in a like manner, be diseased in a female suffering from a similar complaint. It should, therefore, be laid down as a general rule, that

children should never be allowed to draw their sustenance from women known to have a phthisical tendency, or who are already suffering under its infliction.

Hoffman, in his large work, gives a considerable number of instances, which had come under his own immediate observation, of infants suffering from ophthalmia, itch, and many loathsome diseases, which they had contracted from their nurses.

Some years back, writers upon medicine were strenuous supporters of the opinion, that the child not only drew its nourishment, but also its disposition, from its nurse. Wirdig, who wrote about the end of the seventeenth century, speaking upon this subject, gives the following opinion:—"Alieno lacte nutriti, ut plurimum degenerant, et ad nutricum naturam naturalisantur; ex lacte et spiritibus nutricum, adsumunt naturas nutricum et mores: lacte humano cicurantur ferocissima animalia ob spiritus temperatos, quos una cum lacte sugunt ut contra homines ferino lacte educati ferini fiunt et feroces, ut Romuli testatur exemplum et Remi."—"Nourished by a stranger's milk, they for the most part

degenerate, and are degraded to the nature of their nurses. From their milk and passions they acquire also their nature and manners. The most ferocious animals become tame by feeding on human milk, on account of the temperate desires they imbibe together with it; on the contrary, men reared by the milk of beasts, become fierce and cruel, as may be seen in the example of Romulus and Remus.” —*Nov. Med. Spir.* lib. i. cap. 25, § 26. This may be rather in the extreme; but there is considerable truth in the first part of the sentence.

The use of ardent spirits should not be permitted; because, as it has been already mentioned, it will occasion the milk to become alcoholic, and of course stimulating to the infant. Hoffman, an author already quoted, relates the case of a lady who trusted a woman to nurse her child, without being in the least aware that this person was addicted to the use of brandy. For a time the infant thrived, but after a while it began to dwindle. Not being satisfied with the state of its health, the mother took it away, and tried to bring it up by hand. The child, however, became worse; and she having, in the meantime, dis-

covered the propensity of the nurse, and supposing, that however wrong the woman's habits might be, that the sudden abstraction of the stimulus from the child had had an injurious effect upon its health, she tried the experiment of adding a small portion of brandy to the food which was given to it, and from that time forwards it began to thrive ; but, he adds, the mother had as much difficulty in weaning it from the spirit as many others have in weaning their's from the breast. Indeed, so much does he decry this practice of dram-drinking, that he suggests the propriety of chemically examining the milk of all wet-nurses, for the purpose of detecting in it the presence of alcohol.

A child was elected into the Infant Orphan Asylum, whose mother had evidently been accustomed, not only to take spirits herself, but also to give it to her infant. It was suffering from intestinal disease, which occasioned its being seen by the medical men. The matron then mentioned to them her suspicions as to the cause of its ailments. These were speedily confirmed ; for, on showing a wine-glass to the little patient, it was no

sooner placed within her view, than she nearly sprang out of the nurse's arms in her efforts to reach it.

By being strictly kept upon the diet of the institution, she soon recovered her health.

Hired nurses, therefore not the parents of the children with whose care they are entrusted, and who are not strictly watched and overlooked by those more immediately interested, will not restrain their appetites from taking fruits or other viands, which may risk disordering their milk. If, therefore, they will not abstain from improper food when they endanger the health of the infant by indulging in it, neither will they check themselves in giving way to violent fits of anger nor other bad passions, nor refrain from the use of ardent spirits, nor any other injurious habit which they have once acquired.

It is, consequently, of first-rate importance in choosing a wet-nurse, to learn, not only the present condition of her health, but also to make her temper, as well as her general habits, a subject for inquiry ; for it is obvious, that should she give way to violent paroxysms of rage, or other vehement passions, they

will so disorder her secretion of milk as to render it totally unfit for nutrition, and may, perhaps, transmit a similarity of disposition to the object of her care.

- . Suckling should never be protracted beyond the period of commencing dentition, unless the teeth should make their appearance very early. Instances, indeed, occur in which one or two teeth will start through the gums within the first six months after birth, although the remainder will not be visited for some months after. These, however, are unusual examples, and not such as permit of our deducing general rules from them. When a child has a mouthful of teeth, it will, on being applied to the breast, very frequently inflict severe pain, and not uncommonly, also, positive injury: but this is not the only mischief; for when such a change has taken place, a similar alteration arises in the appetite and stomach; and what formerly both sufficed for the satisfaction of the one, and the gratification of the other, no longer does either. Nature points out, that a variation in diet is required, and that that which has been so

long furnished by the mother, is no longer sufficient.

Where lactation is continued after the completion of teething, it is very commonly attended with danger to both the mother and her offspring. If, therefore, a parent will still persevere in her endeavours to entirely support her child, notwithstanding the warning given her by nature that this species of food is neither any longer necessary nor fitted for the purpose, she is doing actual injustice both to herself and infant. After the lapse of some months, the milk becomes so changed in its constitution as to be totally dissimilar to what it was at the early periods of its being secreted. It is of a paler and bluer colour, thinner in consistence, and almost entirely wanting in nutritious matter. The quantity is also materially diminished, and that which is poured forth is yielded at the expense of the mother's health. The child, instead of thriving, becomes emaciated, and not unfrequently the victim of mesenteric disease.

CHAPTER V.

Diet of Children after Teething.—Utility of Animal Food.—Exercise .....	74

IN the advanced months of infancy, that is, as the child approaches twelve months old, some milk, may be judiciously used; as the increase of strength and age causes it to draw farinaceous matter, added to a proportion of more largely, and often vainly, upon its maternal supply. This is, however, to be done cautiously and gradually; but upon the slightest sign of irritation taking place in the stomach or bowels, the employment of vegetable food must be abandoned, and an immediate return made to simple milk; the more substantial nourishment not to be again resumed until all excitement in the intestinal canal has passed away. A very good test of food disagreeing with a child, and one which will often precede disordered bowels, is the increased secretion from the kidneys. Where,

therefore, any species of nutriment is readily digested, not more urine is passed than is equivalent to the fluid received by the stomach ; but if the contrary be the case, the child will be constantly evacuating large quantities.

Where there is much irritation from teething, and inflammatory symptoms shew themselves, the diet should be both light and lacteous ; but when there are not any of these unpleasant concomitants, and the child is weakly, rather than the contrary, a small quantity of animal broth, having the fat carefully removed, and without any other seasoning than a little salt, may be not only allowed, but in many instances absolutely required.

During the whole of the infantile period, much care should be taken of the state of the bowels ; and as children, like adults, constitutionally vary in respect to this evacuation, it is the duty of all nurses to see that it is natural in both quantity and quality. During the process of teething, this calls for still more attentive observation.

As children become older, they require

food of a more nutritive description than that which is entirely farinaceous. Vegetable aliments, even of the very best kind, will not afford sufficient nourishment to a growing child. Besides, as they do not satisfy the craving, but merely content the stomach for a short time, that viscus is being frequently loaded and irritated by a quantity of unnutritious substance. Bread and butter are supposed to be the most harmless compound with which the craving of a juvenile appetite may be stayed ; this, however, is not the case, because, in the first place, the nutritious matter contained in this description of diet is but small ; and in the next, it is habituating the stomach to seek for a supply of sustenance at irregular intervals. Children should always be fed at such stated times during the day as may be deemed proper by those superintending them, but should not be allowed, on any account, to pall their appetites whenever they may fancy they are in want of food. It is by permitting this irregularity that the stomach becomes disordered, and which is soon followed by a similar condition of the intestinal canal.

It seldom enters into the imagination of parents, that very grave mischief may arise from giving way to the cravings of their children for either an inordinate quantity, or improper species of nutriment: it is believed, as a matter of course, that they can digest it; and if not, that it will be rejected by vomiting; or, let the worst happen, they will only suffer from a surfeit, which a little medicine will rectify. This, however, is not the case; permanent irritation of the alimentary tube may be the consequence of a repetition of the impropriety, and not unfrequently hydrocephalus, or water on the brain, has been known to succeed to a rich and unaccustomed meal.

The length of the intervals which may elapse between the times of feeding, varies very much at different periods of existence. An infant, whose whole system is so busily employed in increasing the size of the body, will require nutriment every three hours. As age increases, this may be extended to four or even five hours, but this is the utmost to which it should ever be delayed.

On their becoming older, the space of time

between their repasts may be still further enlarged, but even this must be inconsiderable, as they will require their food in an equal ratio with their increasing activity.

Under general circumstances, so soon as they have completed the act of teething, a portion of animal food is needed, once in the twenty-four hours.

In all moist and variable climates, such as England, and parts of France and Germany, children call for that support which this species of diet alone can give, and which nature herself indicates she is ready to receive by the production of teeth.

It is a very mistaken notion, which is still retained by a large portion of the community, that giving animal food daily, to children, renders them gross, and fills them, as the expression runs, "full of humours." Those who are properly fed upon this species of nourishment are, most commonly, far from being fat; but all their muscles will be found to be fully and properly developed, and round as well as firm to the touch.

On the contrary, those whose constant diet has consisted of the farinaceous kind, will be

fat, pallid, and flabby; of perhaps larger bodily dimensions, but having a muscular configuration small and flaccid; together with an enfeebled stamina.

This was particularly well shown in the children in the Infant Orphan Asylum. Some years back they were constantly requiring medical care, and being attacked with epidemic measles, the disease assumed a character denoting great constitutional debility. This being a condition not usually characterizing the disorder, caused an investigation to be made by the medical men; in the course of which it was found that the diet was principally of a vegetable nature. An alteration was instantly made, and meat was ordered to be given to them once in the twenty-four hours. The institution was moved to its present eligible situation, at Dalston, since which the health of its young inmates has been very materially amended.

In large towns or cities, it is indispensable for the health of children that they should have animal food once during the day: in the country, where there is a purer atmosphere, they will thrive on a less quantity; but even

with this advantage, those whose diet is curtailed of a fair proportion of meat, will not prosper in their growth equally with those who are more liberally supplied with it.

Extremes are always absurd, and often injurious; it is, therefore, as highly detrimental to health, to overload children with the one kind of food as with the other; the only difference is, that when they are repleted with the one, they are less likely to assume lingering disease than with the other.

After the age of infancy, and during that period of life which may be called youth, whilst the body is increasing in both size and height, as much care is requisite as in the more helpless state. During the growth of children, that nature may not be interfered with, nor impeded, in this necessary function, it is highly requisite that she should be furnished with the means; and these are most readily supplied by the nutrition afforded by good food. Soups are occasionally permissible, but certainly ought not to be considered as proper to form a constant part of the diet of young persons when growing. They are commonly used in many families from a

motive of economy; and of their utility in this respect, there can be but little doubt, as they fill the stomach, and thus curtail or impair the appetite for other viands. It is, however, but a false species of thrift which will run the hazard of injuring the health, for the probability of securing a minute pecuniary saving.

In many schools it is the fashion to supply the scholars with a large quantity of pudding previously to their having meat—a practice as objectionable as the filling the stomach with soup or broth. Both are done with the same intent, and in the same degree are alike injurious.

If the proprietors of schools are compelled to resort to such expedients to obtain a greater profit, they had much better charge the parents more per annum, and desist from giving the children such substitutes for more nourishing diet.

Unfortunately for themselves, the stomachs of children have always been made the receptacles of every species of trash; but the worst of all is, supplying them with either insufficient or improper food. It is, however,

in the power of parents, by using proper precautions, to avoid it.

EXERCISE.—Children should have exercise in the open air so soon as they are able to go out. Infants profit by the motion of progression, which they enjoy in being carried about by their nurses ; and it will be readily seen that they are in a state of pleasure, by the quiescence and placidity they evince, and the tranquil state of sleep which often steals over them whilst in the open air. Its freshness is equally gratifying to those who are in some degree older, which is shown by their observation of passing objects, although incapable of either speaking or walking. It does a child not the slightest good to cover its face from the atmosphere ; consequently, it should never be permitted to face the air, when it is much agitated by repeated gusts. All children, indeed, under six years of age, who are consequently unable to keep themselves warm with exercise, had much better remain within doors during very hard frosts, or the cold winds of our winter and early part of spring.

It is little better than cruelty to take chil-

dren out merely for a walk, that is, without there being some promised recreation at its termination. When very young they may be allowed to trundle a small hoop, draw a cart, or play at ball. When older, and they become more companionable, an instructive exhibition, or a similarly profitable amusement, may always be contrived to come in at the end of their perambulation.

By these means exercise is rendered serviceable to the increase and the preservation of bodily health ; but if it be merely taken as a regimen, or as a lady once said, “duty walking,” whether in a child or an adult, it defeats its own object, and becomes a penance instead of a pleasure, producing languor and fatigue, in the place of augmenting both bodily and mental vigour.

Boys are apt to take very violent exercise, and so long as they confine themselves to those games which are unattended by forcible succussion of the body, such as “leap-frog,” and the like, they are useful, and conducive to health ; but where there is much leaping, and the body comes down with considerable impetus, it is very fre-

quently accompanied by serious mischief. Besides, there are many sports which are unattended by this objectionable action, and yet are equally, if not more agile, and as beneficial in their effects upon the constitution. Of these, cricket is a good example.

Girls do not use so much activity in their games as boys, and this is attributable to their different education : their employments and scholastic training tend to make them of sedentary habits. But as this is artificial, and not natural to the feelings of the young, it should not by any means be extensively encouraged. It would not be a difficult matter to make out a long list of high and round shoulders, stooping gaits, and crooked spines, produced by over strict attention to ornamental needlework, embroidery, drawing, and other absorbing but not active accomplishments ; and both parents and teachers may be assured that these will be more readily acquired, and retained, and be returned to with additional zest and alacrity, if their succession be broken by intervals of recreation.

As girls are so long confined by these employments, in uneasy, if not painful positions,

they require, when freed from them, to refresh their limbs with such amusements as serve to exercise all the muscles, and thus give fresh tone and power to the body, and enable it and the mind together to renew their studies with increased pleasure.

Æsop's fable of the constantly bent bow will here apply in more senses than one. It is from this want of more active and stirring amusements that young girls fall into a bad state of health, from which the medical art is unable to relieve them. They have naturally a much more acute perception, and possess a more nervous irritability, than males : by being long confined to inactive positions, with their minds absorbed in exciting occupations, a variety of diseases, depending upon such a state of the system, are produced. Health of body will always originate an equally salutar condition of mind, and it will be readily perceived that the one cannot exist long without the other.

From this mutual dependence, it is very desirable that the equilibrium should be kept up between them.

In the present factitious state of education

more especially as regards girls, all those species of amusements which were formerly tolerated, and which allowed full liberty of action to the limbs and body, are no longer permitted. So that if we except skipping and dancing, or battledoor and shuttlecock, there is not one left which can be considered as giving free play to the muscular system.

It is, doubtless, the exciting course of education, which it is now the custom of pursuing with young females in the higher classes of society, which renders them so peculiarly the victims of excessive nervous sensibility.

The succession of their studies being from one animating acquirement to another, the sensorial functions are perpetually urged forward with an increasing stimulus, which is applied to them in the variety of those intellectual objects, and which are without intermission offered to the mind for its attainment. By thus overstretching the nervous powers during the intermediate period of infancy and adult age, they frequently become impaired before reaching maturity. The remaining portions of such an existence are frequently passed in profound listlessness, scarcely capable of

being interrupted unless by some extraordinary excitement ; or the nerves are left so irritable as to become uncontrollable on experiencing the slightest sensations, pleasurable or otherwise.

The unnatural exercises which were attempted to be introduced into this country from Switzerland and Germany, under the names of Gymnastics and Calisthenics, are but ill suited by their violence to the tender frames of either boys or girls ; for although they give rise to great muscular development, they must entirely fail as a means of exercise, from their being extremely fatiguing, instead of invigorating. Whether grace can be given to the arms and body by distorting them in various ways, by means of swinging bars, ropes, and pulleys, or sticks whirled over the head, and passed from one hand to the other, or by standing for any length of time upon one leg, would puzzle any but a professor of these arts to conceive.

Exercise to be useful should be both natural and pleasurable, and all preternatural actions, nearly amounting to deformity of the limbs,

can be neither the one nor the other ; but, like all artificial sources of excitement, are productive of listlessness and fatigue, rather than of recreation and enjoyment.

These never can be desirable accomplishments for the gentle sex, as great muscular vigour cannot be considered an addition to female beauty. As this can be the only advantage likely to accrue, their adoption into female education is quite inadmissible.

Dancing, on the contrary, is so desirable as to become necessary in training youth of both sexes. It is healthful as well in its acquirement as practice, and from being accompanied by music, the mind is enlivened at the same time that the body is exercised. It is an excellent elucidation of the utility of exertion, being associated at the same time with mental occupation ; besides giving that graceful carriage to the body, which all the violent distortions of the gymnasium must ever fail to effect. The graceful deportment which characterizes the peasants of Italy and France, beautifully illustrates this fact. They are by nature and disposition dancers in the fullest

sense of the word, but they never submit themselves to gymnastic torture ; their carriage is easy, and often elegant, forming a remarkable contrast to their German neighbours, who are from their early youth subjected to military discipline.

THE END.

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